



Beginning December 31, 2008, the City of Bellevue will require all general-purpose circuits in new or remodeled single-family and multifamily dwelling units to be protected with Arc Fault Circuit Interrupters (AFCIs).

The 1999 edition of the National Electrical Code (NEC) required that bedroom circuits be protected by AFCIs. These are special circuit breakers that can detect arcing in a circuit, causing the breaker to trip and shut off power to that circuit.

Traditional circuit breakers trip when the circuit current exceeds the rating of the breaker—typically 15 amps or 20 amps for a bedroom. An electrical arc is created when there is a loose connection or a broken or damaged wire in the circuit. Usually these types of electrical arcs do not produce a high current, so a traditional breaker will not trip. And if left uncorrected, this type of arc can produce enough heat to cause a fire. There are more than 50,000 residential electrical fires every year in the US. Most of these electrical fires could be prevented by using AFCIs.

The 2008 edition of the NEC now requires all general-purpose circuits of the house to be protected with AFCIs. However, citing economic concerns, the Washington State Department of Labor and Industries recently amended the 2008 NEC to *exclude* the AFCI requirement for the entire house and *limit* them to bedrooms only.

Cities that enforce the NEC are not required to adopt the state's amendments provided their electrical ordinance is "equal, better or greater than" the state code. An electrical committee, consisting of representatives from 15 cities and sponsored by MyBuildingPermit.com (MBP) and the Washington Association of Building Officials (WABO), researched this issue. The committee decided unanimously to endorse adoption of the 2008 NEC with the AFCI protection required for the entire dwelling.

The committee believes there is enough fire data to indicate that the installation of AFCIs substantially increases the safety of electrical systems in houses and is a cost effective way to prevent residential electrical fires. The typical cost for a new house to have the additional AFCIs installed would be \$150 to \$200.

City of Bellevue staff are working with other cities to create a common ordinance that would adopt the 2008 NEC in February or March of 2009.

For More Information

To learn more you can:

- Visit the Development Services Center on the first floor of Bellevue City Hall (450 110th Avenue NE).
- Contact Bob Johnston, 425-452-4574, or David Sher, 425-452-4290, in the Building Division.